

Fig. 1

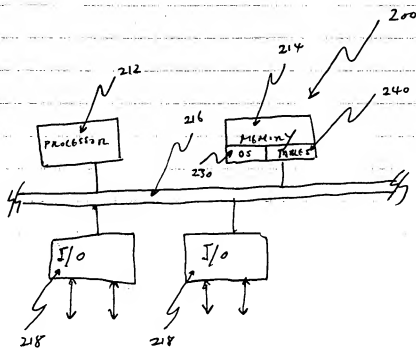


Fig 2

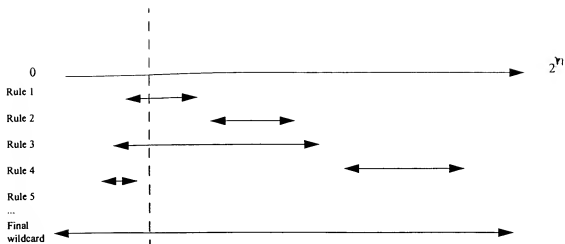


Fig. 3

09557480-042400

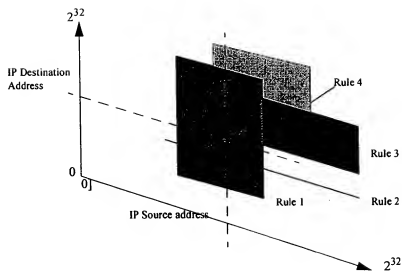


Fig. 4

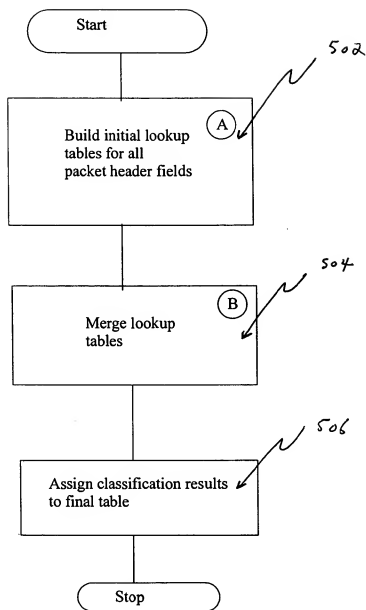


Fig. 5

09557480-044400

:	:	:	:	:	:
IP Source addr	IP Destination addr	Protocol/ TOS/ Precedence	Source port #	Destination port number	TCP flags

Fig. 6

Create initial table for one packet field

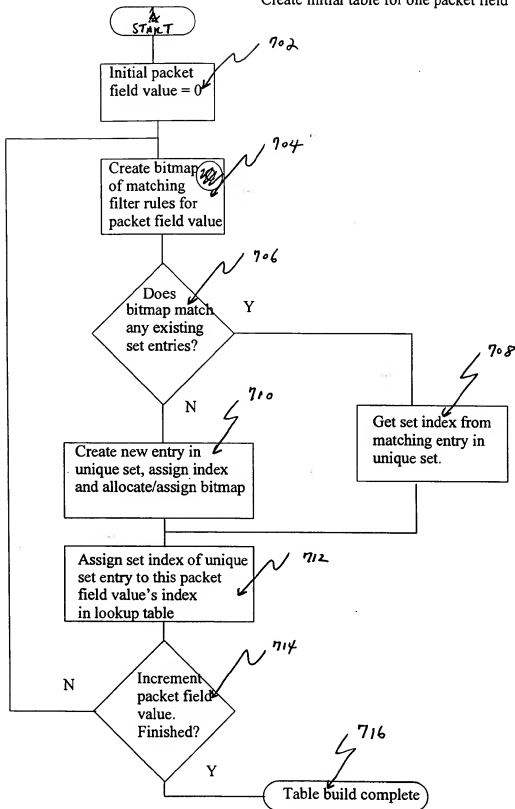


Fig. 7

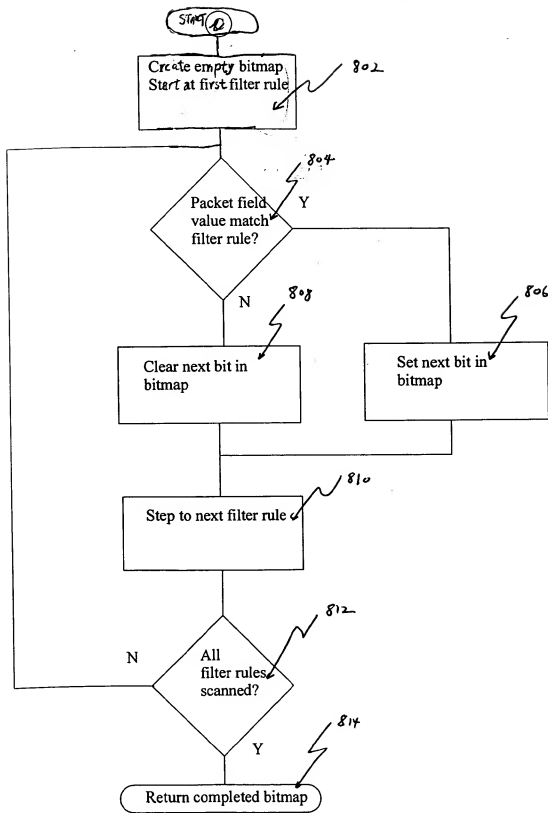


Fig. 8

Table 1	
Index	Bitmap
0	A1 A2 A3 A4...
1	B1 B2 B3 B4...
...	

New lookup table

Table 2	
Index	Bitmap
0	a1 a2 a3 a4...
1	b1 b2 b3 b4...
...	

New unique set

$[0,0] = A1\ A2\ A3\ A4\ \dots \&\ a1\ a2\ a3\ a4\ \dots$
 $[0,1] = A1\ A2\ A3\ A4\ \dots \&\ b1\ b2\ b3\ b4\ \dots$
 \dots
 $[1,0] = B1\ B2\ B3\ B4\ \dots \&\ a1\ a2\ a3\ a4\ \dots$
 $[1,1] = B1\ B2\ B3\ B4\ \dots \&\ b1\ b2\ b3\ b4\ \dots$
 \dots

Index	New bitmap
0	X1 X2 X3 X4 ...
1	Y1 Y2 Y3 Y4 ...
...	

Fig. 9

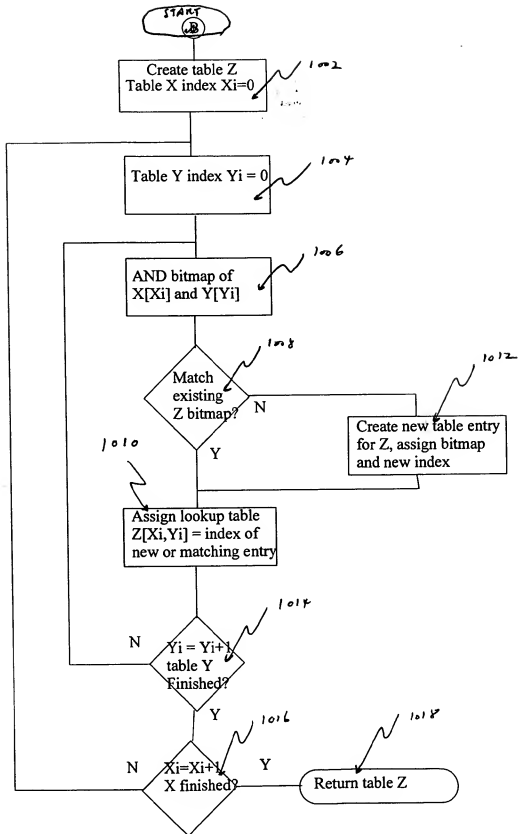


Fig. 10

09557480-042400-004240-08425560

Upper 16 bits of IP source

Index	Bitmap
0	0 0 0 1 1
1	1 1 0 1 1
2	0 0 1 1 1

Lower 16 bits

Index	Bitmap
0	0 0 0 1 1
1	1 1 1 1 1

New lookup table

[0,0]
[0,1]
[1,0]
[1,1]
[2,0]
[2,1]

New equivalence set

Index

Bitmap

0	0 0 0 1 1
1	1 1 0 1 1
2	0 0 1 1 1

Fig. 11

0957480-042400

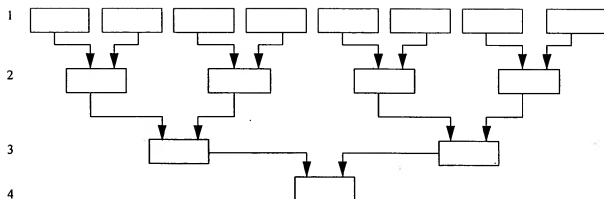


Fig. 12